INFORMATION BRIEFING

JOINT MEDICAL OPERATIONS - TELEMEDICINE ADVANCED CONCEPT TECHNO RATION

ADVANCED CONCEPTS TECHNOLOGY DEMONSTRATIONS (ACTD) (R&D PROGRAMS)

- Specific Joint Staff/ DUSD(A,S &C) programs
- Specific, formal partnership between a CINC and materiel developers.
- Robust evaluation to assess military utility
- Planned transition to an acquisition program
- Provides to the CINC a residual 'leave-behind' capability

A balance of 'technology push' with 'requirements pul

JMO-T Background

- In 1997, Army tasked to lead first medical advanced concept technology demonstration (ACTD)
- CINC, USAPACOM signed on as sponsor for this Joint initiative
- Implementation Directive sign February 1999
- ACTD emerged as Joint Medical Operations concept, enabled by information technologies

STATEMENT OF THE PROBLEM

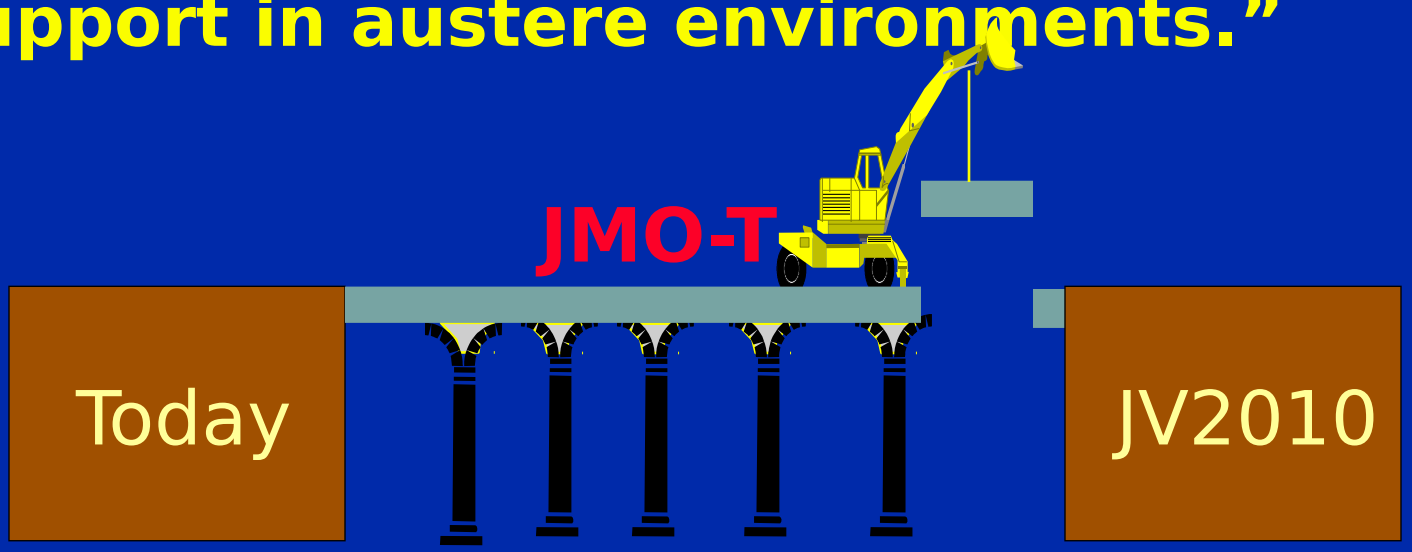
- **Challenges identified by JV2010/2020 are here today!**
  - **Dispersed forces and operations**
  - **Short warning times**
  - **Long distances**
  - **Austere environments**
  - **Limited infrastructure**

Joint Interoperability
Seamless Information Access
Focused Logistics
Despite time, distance, organizational obstacles

- Network-poor joint medical battlespace
- Limited ability to deploy essential capabilities to austere environments
- Limited force management tools and resources (M&S)

JMO-T ACTD Objective

"Provide the CINC and CJTF a capability to defeat time, distance, and organizational obstacles to high-quality, cost-effective Joint Health Support in austere environments."



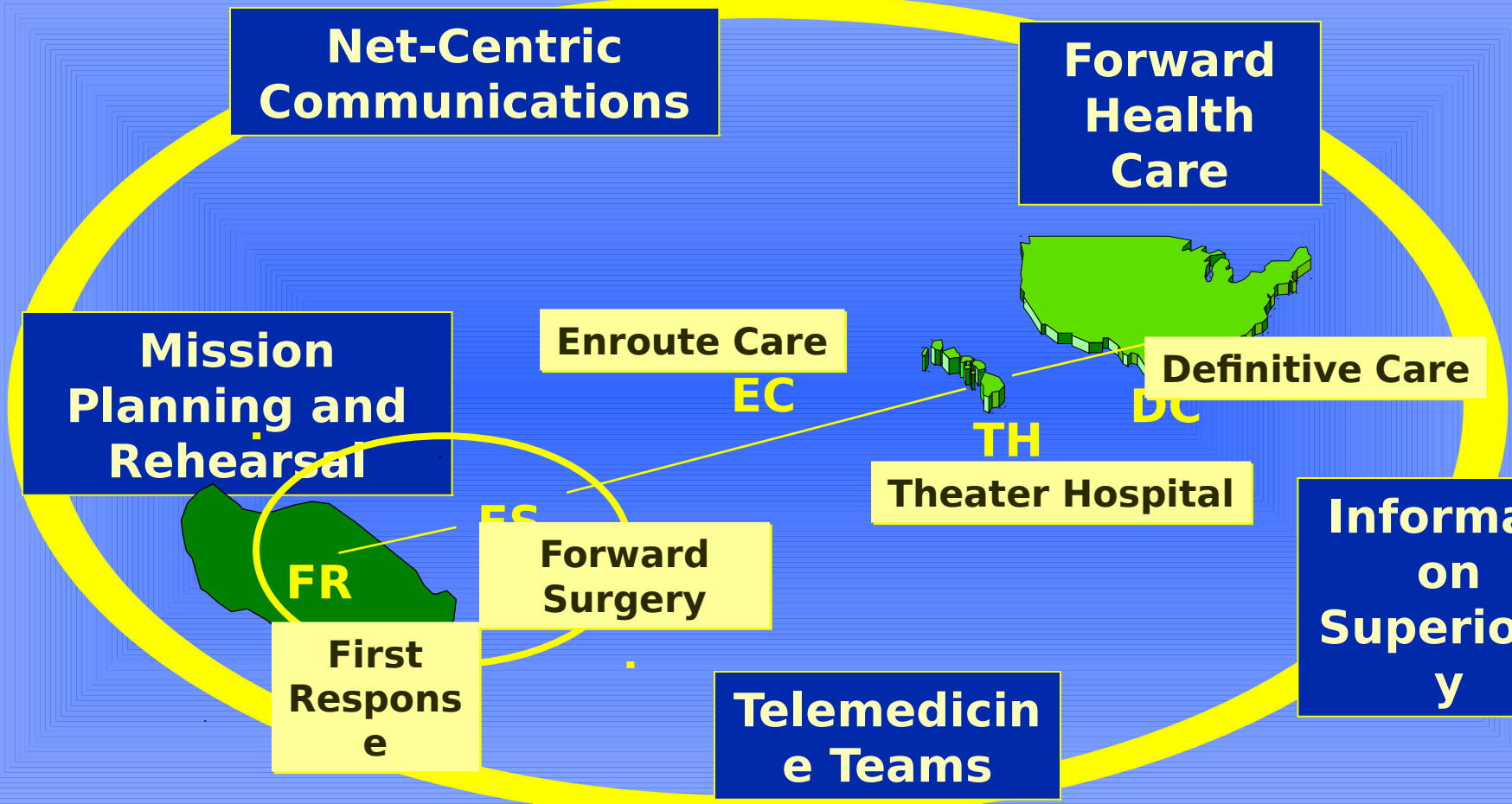
CINC's CRITICAL NEED

"TELEMEDICINE" ACTD

JOINT MEDICAL OPERATIONS - TELEMEDICINE ACTD

"The use of information in conjunction with communications systems to provide healthcare remotely."

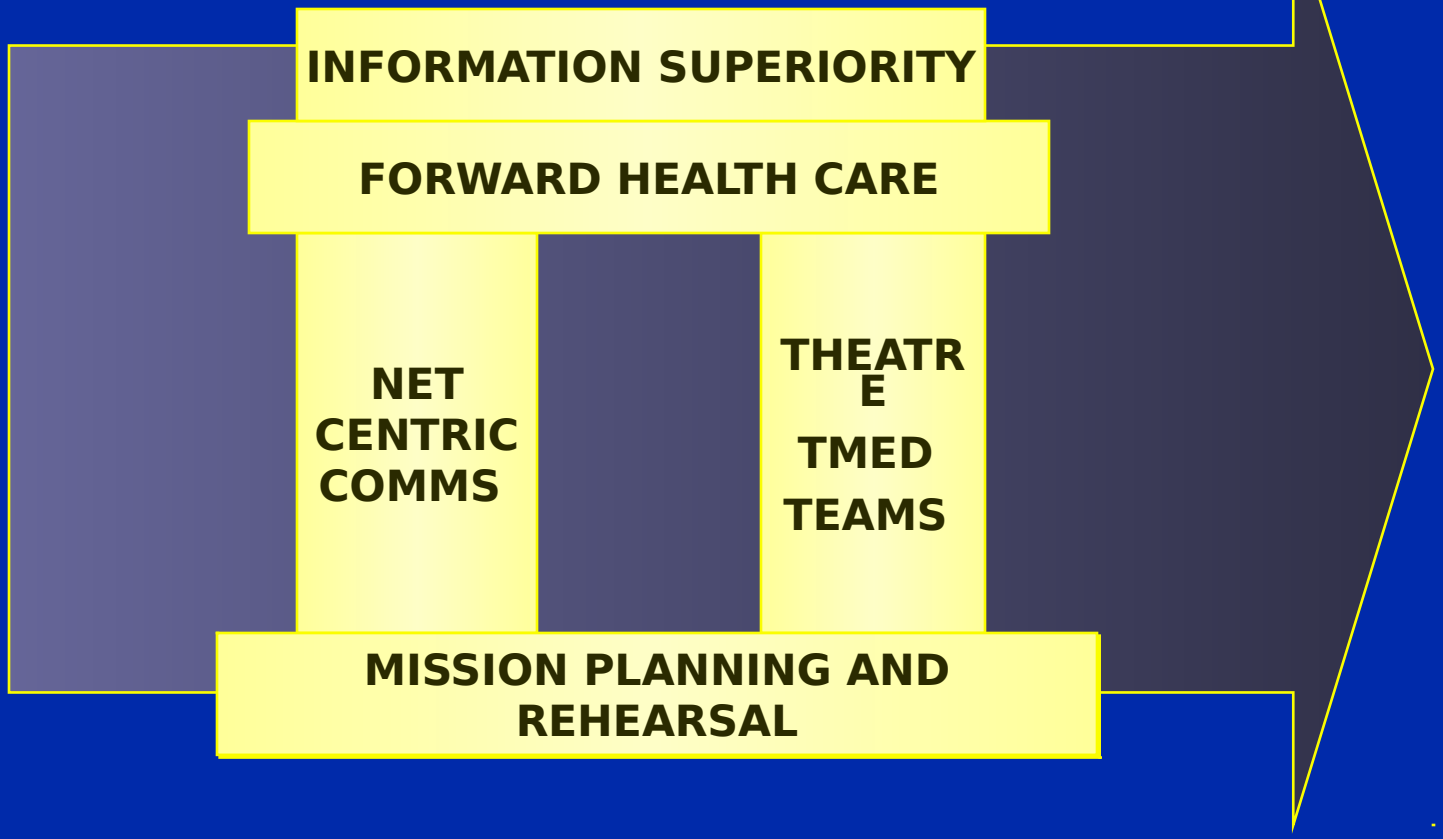
5 Major Thrusts = 5 Critical Operational Issues



INTER-RELATIONSHIP OF COI's

Provide warfighting CINCs a near-term capability to defeat time, distance, and organizational

obstacles to effective Joint Health Service Support in austere and non-linear operational environments.



METRICS & MEASURES FY00

- Reduce nonessential evacuations, enhance force protection, and reduce attrition
- Improve the JTF Surgeon's view of the medical battlespace *(Common Operational Picture)*
- Rapidly deploy a right-sized telemedicine capability to JTF
- Enhance medical mission planning and rehearsal through effective modeling and simulation *(Collaborative Planning)*
- Establish cost-effective communications capability

Assured Information Operations!

LEAVE BEHIND CAPABILITY

Joint Medical Operations - Telemedicine

Advanced Concept Technology Demonstration

Operations (CONOPS)

- Reachback Capability from far forward to expertise available at definitive care facility
- Modeling and Simulation: JTF 'tailoring' and Interactive Rehearsals
- Aeromedical communications integrated with ground operations
- Network -Centric Communications; fully integrated with C4ISR, PACOM architecture and Global Grid
- Trained, deployable operators of JMO-T h/w, s/w, networks ; provide technical and clinical support
- Vision: Organic capability to all medical units where required

PACOM OM Responsibilities

Determining Military Utility

- Determines and validates Operational Requirements and warfighting capability issues.
- Provides the Operational focus and validates the JMO-T exercise and training objectives.
- Coordinates all aspects of JMO-T exercises
- Develops and Defines Exercise Operational Architecture.
- Drafts, clarifies and continually updates the overall JMO-T CONOPS as well as Joint Doctrine TTP's and manning issues.
- Establishes & validates criteria for choosing the Capstone exercise
- Develops and Defines (MOPs) for (MOEs) defined in the Analysis Plan as required.
- Coordinates with other IPT's for synergistic approach.
- Co-Chair of the Integrating IPT.
- Integration with PACOM Architecture
- Performs MUA and makes recommendation to CINC on MU

EXERCISE PARTICIPATION

- **Kernel Blitz 99 (April 99).**
  - **Demonstrated technical feasibility of tactical medical networks and net-centric operations; provided FHP and C4I information to Treatment Facilities and JTF Flagship from far-forward Shock Trauma Platoon medics**
  - **Lessons Learned about network reliability, assured information operations, and limitations of existing tactical radios in a networked environment**
  - **Lessons Learned about medical data flow requirements to meet JV2010 FHP and C4I needs**
  - **Estimated high value in partnering with ELB ACTD**

EXERCISE PARTICIPATION

- **Patriot Medstar (-) 99 (June 99)**
  - **Successfully interfaced AF and Navy SW to provide FHP and Medical C2 from Far Forward medical units**
  - **Successful insertion of a prototype Theater Telemedicine Team and its equipment to process telemedicine consults between a deployed treatment facility and TAMC**
  - **Successful test of clinical consultation SW**
  - **Successful use of HF (ALE) radio link to NIPRNET**
  - **First evaluation of AF Care in the Air Communications Package**

EXERCISE PARTICIPATION

- **Pacific Warrior 99 (November 99)**
  - **Evaluated Theater Telemedicine Team (TTT) providing reach-back radiology service from far forward to one CONUS sustaining base hospital.**
  - **Validated information requirements for effective C2, medical situational awareness, and awareness of medical threats.**
  - **Evaluated advanced medical communications to enhance forward healthcare and medical information superiority.**
  - **Evaluated the usefulness of modeling and simulation to augment the medical exercise battlespace.**

EXERCISE PARTICIPATION

- **Cobra Gold2000 (May 00)**
  - **In support to real world deployed forces:**
    - **Gathered clinical data at point of care, transported it to an ITDB using layer communications (NIPRNET and HF Radio), formatted the data into Medical Situational reports, including hospitalizations and ITV in near real time.**
    - **Provided Clincial consultation for deployed forces via TAMC**
  - **In MED/DENT CAP**
    - **For the first time gathered, transported and displayed data for very large number of patients to provide accurate data to CJTF Surgeon on Thai Nationals**
    - **Provided Clincial consultation for deployed forces via TAMC**
  - **Synchronizing medical and line CPX SW**

OPERATIONAL ARCHITECTURE